

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Amendments to the claims:

The listing of claims will replace all prior versions and listings of claims in the application.

Listing of claims:

Claims 1-28 (canceled without prejudice or disclaimer).

Claim 29 (currently amended): A lubricating composition of matter comprising a polymer, where said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein said material for lubricating a surface comprises:

(1) a lubricating metal and alloy thereof, lubricating metal oxide, halide, nitride, carbonate and phosphate, or carbon lubricant; or

(2) a silicate ester, polyphenyl ether, phosphate, biphenyl, phenanthrene, or phthalocyanine;

said material for lubricating a surface optionally comprising an, organic lubricant, a solid or particulate inorganic lubricant, optionally containing an organic lubricant, or water, or a lubricant additive;

or mixtures thereof.

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Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 30 (currently amended): A lubricating composition of matter comprising a polymer, where said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface wherein said material for lubricating a surface comprises a solid or particulate inorganic lubricant containing an organic lubricant, optionally comprising water, or a lubricant additive. The composition of claim 29 wherein said organic lubricant comprises a petroleum oil lubricant or grease thereof,
or mixtures thereof.

Claim 31 (currently amended): The composition of one of claims 29 or 30 wherein said material for lubricating a surface comprises claim 29 wherein said inorganic lubricant comprises, a carbon, or a metal material that provides barrier-layer lubrication, or mixtures thereof.

Claim 32 (currently amended): The composition of one of claims 29 or 30 wherein said material for lubricating a surface comprises claim 31 where said inorganic lubricant graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbitt, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, indium, or the Group VIII noble metals or mixtures thereof.

Claim 33 (canceled without prejudice or disclaimer).

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 34 (previously presented): The composition of one of claims 29 or 30 ~~which~~ includes a material comprising claim 29 ~~where said organic lubricant comprises a~~ fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer ~~or co-~~ copolymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or ~~mixtures~~ thereof.

Claim 35 (previously presented): A lubricating composition of matter comprising a polymer wherein said polymer comprises a superabsorbent polymer that absorbs ~~greater~~ than about 100 times its weight in water combined with a material for lubricating a surface, ~~wherein~~ said material for lubricating a surface comprises water containing a lubricant additive.

Claim 36 (currently amended): A lubricating composition of matter comprising a polymer wherein said polymer comprises a superabsorbent polymer that absorbs ~~greater~~ than about 100 times its weight in water combined with a material for lubricating a surface, wherein said material for lubricating a surface comprises an oil or greases thereof or mixtures thereof and water, optionally containing a lubricant additive.

Claim 37 (currently amended): A lubricating composition of matter of one of claims 29 or 30 ~~comprising a polymer wherein said polymer comprises a superabsorbent polymer that~~ absorbs ~~greater than about 100 times its weight in water combined with a material for lubricating~~ a surface, wherein said material for lubricating a surface includes ~~comprises a solid lubricant~~ and water, ~~optionally containing a lubricant additive.~~

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 38 (currently amended): The composition of claim 37 where said material for lubricating a surface comprises ~~where said solid lubricant is~~ graphite, molybdenum disulfide, cobalt chloride, antimony oxide, niobium selenide, tungsten disulfide, boron nitride, silver sulfate, cadmium chloride, cadmium oxide, cadmium iodide, borax, basic white lead, lead carbonate, lead monoxide, lead iodide, asbestos, talc, zinc oxide, zinc phosphate, iron phosphate, manganese phosphate, carbon, babbitt, bronze, brass, aluminum, gallium, indium, thallium, thorium, copper, silver, gold, mercury, lead, tin, ~~indium~~, the Group VIII noble metals, a fluoroalkylene homopolymer or copolymer, a lower alkylene polyolefin homopolymer or copolymer, a paraffinic hydrocarbon wax, phenanthrene, copper phthalocyanine, or mixtures thereof.

Claim 39 (previously presented): A lubricating composition of matter comprising a polymer wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water combined with a material for lubricating a surface, wherein said material for lubricating a surface comprises a phosphate, and wherein said material for lubricating a surface optionally contains a lubricant additive.

Claim 40 (previously presented): The composition of claim 39 where said phosphate comprises tricresyl phosphate, zinc phosphate, iron phosphate or manganese phosphate, or mixtures thereof.

Claim 41 (currently amended): The composition of one of claims 29 or 30 ~~claim 29~~ wherein said organic lubricant comprises a fatty oil, or fatty acid or wax, or mixtures thereof.

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 42 (currently amended) The composition of claim one of claims 29 or 30 ~~claim 29~~ wherein said organic lubricant comprises a synthetic oil lubricant, or greases thereof, ~~or two-~~ mol ethoxylate of isostearyl alcohol, ~~or greases thereof~~, or mixtures thereof.

Claim 43 (currently amended): The composition of one of claims 29 or 30 ~~claim 29~~ wherein said organic lubricant comprises a soap, ~~and~~.

Claims 44-47 (canceled without prejudice or disclaimer).

Claim 48 (currently amended): The composition of one of claims 29 or 30 ~~claim 29~~ wherein said organic lubricant comprises a polymerized olefin.

Claim 49 (currently amended): The composition of one of claims 29 or 30 ~~claim 29~~ wherein said organic lubricant comprises an organic ester.

Claims 50-52 (canceled without prejudice or disclaimer).

Claim 53 (currently amended): The composition of one of claims 29 or 30 ~~claim 35~~ where said superabsorbent polymer absorbs greater than about 100 times its weight in water and is comprises a polymer of acrylic acid, an acrylic ester, acrylonitrile, acrylamide, copolymers thereof or mixtures thereof, and wherein said lubricant additive ~~is~~ comprises an antioxidant, rust inhibitor, antiwear compound, extreme pressure additive, detergent, dispersant, pour point depressant, viscosity-index improver, or foam inhibitor.

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 54 (canceled without prejudice or disclaimer).

Claim 55 (currently amended): A lubricating composition of matter comprising a polymer, wherein said polymer comprises a superabsorbent polymer that absorbs ~~greater~~ than about 100 times its weight in water combined with a material for lubricating a surface ~~which~~ comprises ~~the chalcogenides~~ a chalcogenide of a non-noble metal or mixtures of chalcogenides of a non-noble metal, optionally containing a lubricant additive, ~~and mixtures thereof~~.

Claim 56 (currently amended): The composition of claim 37 wherein said material for lubricating a surface ~~solid lubricant~~ comprises ~~the chalcogenides~~ a chalcogenide of a non-noble metal or mixtures of chalcogenides of a non-noble metal ~~the chalcogenides of a non-noble metal and mixtures of said lubricant~~.

Claim 57 (currently amended): The composition of claim 55 wherein said material for lubricating a surface ~~solid lubricant~~ comprises ~~the chalcogenides~~ a chalcogenide of molybdenum, antimony, niobium, and tungsten and mixtures of said chalcogenides ~~lubricant~~.

Claim 58 (currently amended): The composition of claim 37 wherein said material for lubricating a surface ~~solid lubricant~~ comprises ~~the chalcogenides~~ a chalcogenide of molybdenum, antimony, niobium, and tungsten and mixtures of said chalcogenides ~~lubricant~~.

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 59 (currently amended): The composition of claim 55 wherein said ~~material~~ for lubricating a surface solid lubricant comprises ~~the sulfides~~ a sulfide of molybdenum, ~~antimony~~, niobium, and tungsten and mixtures of said sulfides lubricant.

Claim 60 (currently amended): The composition of claim ~~37~~ 55 wherein said ~~material~~ for lubricating a surface solid lubricant comprises ~~the sulfides~~ a sulfide of molybdenum, antimony, niobium, and tungsten and mixtures of said sulfides lubricant.

Claim 61 (currently amended): The composition of any one of claims ~~55 and 57~~ 55, 57, ~~and 59~~ wherein said mixture comprises a two component mixture of said materials for lubricating a surface lubricants.

Claim 62 (currently amended): The composition of ~~any one of claims 56, 58, and 60~~ claim 56 wherein herein said mixture comprises a two component mixture of said materials for lubricating a surface lubricants.

Claim 63 (currently amended): The composition of any one of claims ~~55 and 57~~ 55, 57, ~~and 59~~ wherein said mixture comprises a three component mixture of said materials for lubricating a surface lubricants.

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 64 (currently amended): The composition of ~~any one of claims 56, 58, and 60~~
claim 56 wherein said mixture comprises a three component mixture of said materials for
lubricating a surface lubricants.

Claim 65 (currently amended): The composition of any one of claims 55 and 57 ~~55, 57,~~
~~and 59~~ wherein said mixture comprises a four component mixture of said materials for
lubricating a surface lubricants.

Claim 66 (currently amended): The composition of ~~any one of claims 56, 58, and 60~~
claim 56 wherein said mixture comprises a four component mixture of said materials for
lubricating a surface lubricants.

Claim 67 (currently amended): A lubricant composition of any one of claims 29 or 30
~~claim 29~~ wherein said organic lubricant comprises a grease.

Claim 68 (currently amended): The composition of any one of claims 29, 30, 31, 32
39, 29-34, 39-50, 55, and 57, 59, and 67 wherein said composition is substantially anhydrous.

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claims 69-71 (canceled without prejudice or disclaimer).

Claim 72 (new): The composition of claim 31 wherein said composition is ~~substantially~~ anhydrous.

Claim 73 (new): The composition of claim 32 wherein said composition is ~~substantially~~ anhydrous.

Claim 74 (new): The composition of claim 34 wherein said composition is ~~substantially~~ anhydrous.

Claim 75 (new): The composition of claim 39 wherein said composition is ~~substantially~~ anhydrous.

Claim 76 (new): The composition of claim 40 wherein said composition is ~~substantially~~ anhydrous.

Application S rial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 77 (new): The composition of claim 41 wherein said composition is ~~substantially~~ anhydrous.

Claim 78 (new): The composition of claim 42 wherein said composition is ~~substantially~~ anhydrous.

Claim 79 (new): The composition of claim 48 wherein said composition is ~~substantially~~ anhydrous.

Claim 80 (new): The composition of claim 58 wherein said mixture comprises a two component mixture.

Claim 81 (new): The composition of claim 58 wherein said mixture comprises a three component mixture.

Claim 82 (new): The composition of claim 58 wherein said mixture comprises a four component mixture.

Application Serial No.: 09/357,957
Amendment dated March 8, 2005
Response to January 14, 2005 Office Action

Claim 83 (new): A process of producing a lubricating composition of matter comprising combining a polymer with a material for lubricating a surface;

wherein said polymer comprises a superabsorbent polymer that absorbs greater than about 100 times its weight in water; and

wherein said material for lubricating a surface comprises a solid or particulate inorganic lubricant containing an organic lubricant, optionally comprising water, or a lubricant additive; or mixtures thereof.

Claim 84 (new): A product produced by the process of claim 83.

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